

MINUTES OF THE
MARICOPA ASSOCIATION OF GOVERNMENTS
AIR QUALITY TECHNICAL ADVISORY COMMITTEE MEETING

Thursday, June 26, 2014

MAG Office
Phoenix, Arizona

MEMBERS ATTENDING

Philip McNeely, Phoenix, Chairman	Dan Duffy for Steve Trussell, Arizona Rock
William Mattingly, Peoria, Vice Chair	Products Association
Paul Lopez for Daniel Culotta, Avondale	Ashley Ferguson for Claudia Whitehead, Greater
Susan Avans for John Minear, Buckeye	Phoenix Chamber of Commerce
# Jim Weiss, Chandler	# Amanda McGennis, Associated General
# Jamie McCullough, El Mirage	Contractors
Jessica Koberna, Gilbert	* Spencer Kamps, Homebuilders Association of
Megan Sheldon, Glendale	Central Arizona
* Cato Esquivel, Goodyear	* Mannie Carpenter, Valley Forward
# Kazi Haque, Maricopa	* Kai Umeda, University of Arizona Cooperative
# Greg Edwards for Scott Bouchie, Mesa	Extension
Sam Brown for Tim Conner, Scottsdale	Joonwon Joo for Beverly Chenausky, Arizona
# John McFarlane for Antonio DeLaCruz, Surprise	Department of Transportation
Oddvar Tveit, Tempe	Diane Arnst, Arizona Department of
* Youngtown	Environmental Quality
# Ramona Simpson, Queen Creek	* Environmental Protection Agency
# Walter Bouchard, American Lung Association of	Bob Downing for Thomas Ekren, Maricopa
Arizona	County Air Quality Department
# Wendy Crites for Kristin Watt, Salt River Project	# Scott DiBiase, Pinal County
Rebecca Hudson, Southwest Gas Corporation	* Michelle Wilson, Arizona Department of Weights
Ann Carlton, Arizona Public Service Company	and Measures
# Gina Grey, Western States Petroleum Association	* Ed Stillings, Federal Highway Administration
Robert Forrest, Valley Metro/RPTA	* Judi Nelson, Arizona State University
* Dave Berry, Arizona Motor Transport Association	Stan Belone, Salt River Pima-Maricopa Indian
* Jeannette Fish, Maricopa County Farm Bureau	Community

*Members neither present nor represented by proxy.

#Participated via telephone conference call.

+Participated via video conference call.

OTHERS PRESENT

Lindy Bauer, Maricopa Association of Governments	Feng Liu, Maricopa Association of Governments
Matt Poppen, Maricopa Association of Governments	Ron Pope, Maricopa County Air Quality
Julie Hoffman, Maricopa Association of Governments	Department
Kara Johnson, Maricopa Association of Governments	Dena Konopka, Maricopa County Air Quality
Randy Sedlacek, Maricopa Association of	Department
Governments	Beverly Chenausky, Maricopa County Air
Cathy Arthur, Maricopa Association of Governments	Quality Department
Taejoo Shin, Maricopa Association of Governments	Joe Gibbs, City of Phoenix
Patrick Shaw, Maricopa Association of Governments	Amanda Nash, Maricopa County
Dean Giles, Maricopa Association of Governments	
Adam Xia, Maricopa Association of Governments	

1. Call to Order

A meeting of the Maricopa Association of Governments (MAG) Air Quality Technical Advisory Committee (AQTAC) was conducted on June 26, 2014. Philip McNeely, City of Phoenix, Chair, called the meeting to order at approximately 1:35 p.m. Greg Edwards, City of Mesa; Jim Weiss, City of Chandler; Gina Grey, Western States Petroleum Association; Amanda McGennis, Associated General Contractors; Jamie McCullough, City of El Mirage; Walter Bouchard, American Lung Association of Arizona; John McFarlane, City of Surprise; Scott DiBiase, Pinal County; Wendy Crites, Salt River Project; Ramona Simpson, Town of Queen Creek; and Kazi Haque, City of Maricopa, attended the meeting via telephone conference call.

Chair McNeely indicated that copies of the handouts for the meeting are available. He noted for members attending through audio conference, the presentations for the meeting will be posted on the MAG website under Resources for the Committee agenda, whenever possible. If it is not possible to post them before the meeting, they will be posted after the meeting.

2. Call to the Audience

Chair McNeely stated that according to the MAG public comment process, members of the audience who wish to speak are requested to fill out comment cards, which are available on the tables adjacent to the doorways inside the meeting room. Citizens are asked not to exceed a three minute time period for their comments. Public comment is provided at the beginning of the meeting for nonagenda items that fall under the jurisdiction of MAG and nonaction agenda items. Chair McNeely noted that no public comment cards had been received.

3. Approval of the May 22, 2014 Meeting Minutes

The Committee reviewed the minutes from the May 22, 2014 meeting. William Mattingly, City of Peoria, moved and Amanda McGennis, Associated General Contractors, seconded, and the motion to approve the May 22, 2014 meeting minutes, carried unanimously.

4. Draft MAG 2014 State Implementation Plan Revision for the Removal of Stage II Vapor Recovery Controls in the Maricopa Eight-Hour Ozone Nonattainment Area

Matt Poppen, Maricopa Association of Governments, presented the MAG 2014 State Implementation Plan (SIP) Revision for Removal of Stage II Vapor Recovery Controls in the Maricopa Eight-Hour Ozone Nonattainment Area. He stated that on May 16, 2012, the Environmental Protection Agency (EPA) made a determination that Onboard Refueling Vapor Recovery (ORVR) is in widespread use throughout the motor vehicle fleet. States may now evaluate the removal of Stage II controls at gasoline dispensing facilities since ORVR and Stage II vapor recovery are redundant control systems. Mr. Poppen indicated that the SIP revision requests that EPA remove the requirement to install and operate Stage II vapor recovery systems in the Maricopa eight-hour ozone nonattainment area for new gasoline dispensing facilities beginning in 2014 and for existing facilities beginning in October 2016, before a regional disbenefit begins to occur in 2018.

Mr. Poppen provided an overview of Stage II vapor recovery systems and onboard refueling vapor recovery. He explained that Stage II controls are designed to capture gasoline vapors from motor vehicle gas tanks, during vehicle refueling, that are then put into the underground storage tank. This

prevents gasoline vapors from entering the air during vehicle refueling. Beginning in 1998, vehicle manufacturers began the installation of ORVR into vehicles. ORVR consists of an activated carbon canister onboard vehicles that captures vapors during the refueling process that are then burned as fuel during engine start-up. Mr. Poppen mentioned that incompatibility issues exist between ORVR and vacuum assisted Stage II controls. The incompatibility issues occur when both systems are active during refueling, the Stage II controls can pull air into the underground storage tank instead of gasoline vapors. The air in the underground storage tank increases the vapor pressure of the tank which then vents as excess emissions.

Mr. Poppen stated that on August 7, 2012, EPA released Guidance on Removing Stage II Gasoline Vapor Control Programs from State Implementation Plans and Assessing Comparable Measures. The guidance includes equations that are used to estimate the areawide impact of Stage II vapor recovery systems on vehicle refueling volatile organic compound (VOC) emissions. He presented the results of the EPA equations for areawide emission reduction benefits and disbenefits of Stage II controls. The table demonstrates that as the percentage of vehicles equipped with ORVR increases, the benefits of Stage II controls lessen. Beginning in 2018, Stage II controls no longer provide VOC emission benefits, but produce VOC emissions disbenefit due to the incompatibility issues between Stage II and ORVR systems.

Mr. Poppen discussed that Clean Air Act Section 110(l) precludes EPA from approving a SIP revision if it would interfere with attainment of the National Ambient Air Quality Standards, reasonable further progress towards attainment, or any other applicable requirement under the Clean Air Act. EPA recommended following a Stage II removal schedule for new facilities beginning in 2014 and for existing facilities beginning in October 2016, after the 2016 ozone season, as this schedule results in the smallest temporary increase in VOC emissions of the scheduling options considered. The temporary increase in VOC emissions from the scheduled removal of Stage II are too small to interfere with attainment or progress towards attainment. Mr. Poppen displayed a table with the temporary increase in VOC emissions from both new and existing facilities. He stated that all facilities are scheduled to have Stage II controls removed by September 30, 2018.

Mr. Poppen stated that an analysis of mobile source VOC emissions found that when Stage II controls are assumed to be completely removed beginning in 2014, mobile source VOC emissions still exhibit a downward trend in future years. This conservative analysis provides a second demonstration that removal of Stage II controls in the Maricopa eight-hour ozone nonattainment area will not interfere with attainment, or progress towards attainment, as required by Section 110(l) of the Clean Air Act. Mr. Poppen reported the results of the mobile source VOC emission trends with and without Stage II controls. The table shows that nonroad and onroad mobile source VOC emissions continue to decline each year even after assuming Stage II controls are completely removed beginning in 2014. In addition, mobile source VOC emissions are less without Stage II controls beginning in 2018 when the Stage II emissions disbenefit begins. Mr. Poppen presented a figure that displayed the decline of mobile source VOC emissions when Stage II controls are removed in 2014. He indicated that the figure also displayed that the mobile source VOC emissions are less without Stage II controls beginning in 2018.

Mr. Poppen summarized that Stage II controls no longer provide areawide VOC emission reductions benefits in the Maricopa eight-hour ozone nonattainment area beginning in 2018. He stated that the scheduled removal of Stage II controls beginning in 2014 for new gasoline dispensing facilities and October 2016 for existing facilities results in the smallest temporary increase in VOC emissions of the

scheduling options considered. The temporary increase in emissions does not alter the downward trend in mobile source VOC emissions and is too small to interfere with attainment of the ozone standard, or reasonable progress towards attainment, as required by Section 11(l) of the Clean Air Act.

Mr. Poppen presented the schedule for the MAG 2014 SIP Revision for Removal of Stage II Vapor Recovery Controls in the Maricopa Eight-Hour Ozone Nonattainment Area. He noted that on May 2, 2014 the draft SIP revision became available for public review. The MAG 2014 SIP Revision for Removal of Stage II Vapor Recovery Controls public hearing was held on June 3, 2014. Mr. Poppen indicated that the MAG Air Quality Technical Advisory Committee may make a recommendation to the MAG Management Committee on June 26, 2014. The MAG Management Committee may make a recommendation to the MAG Regional Council on August 6, 2014. On August 27, 2014 the MAG Regional Council may adopt the MAG 2014 State Implementation Plan Revision for Removal of Stage II Vapor Recovery Controls in the Maricopa Eight-Hour Ozone Nonattainment Area. Mr. Poppen indicated that MAG would then submit the SIP revision to the Arizona Department of Environmental Quality (ADEQ) and EPA on August 29, 2014.

Mr. Poppen noted that the official transcript of the MAG 2014 SIP Revision for Removal of Stage II Vapor Recovery Controls in the Maricopa Eight-Hour Ozone Nonattainment Area public hearing, held on June 3, 2014, has been provided to the Committee. He stated that no verbal comments were received at the public hearing. Mr. Poppen indicated that no written comments were submitted during the public comment period.

William Mattingly, City of Peoria, inquired about the rules in place for the SIP revision process. Mr. Poppen responded that the SIP revision is in response to Section 110(l) in the Clean Air Act. Stage II vapor recovery systems are control measures in prior ozone plans and Section 110(l) demonstration is required in order to remove Stage II controls. Ms. Bauer noted that Section 110(l) of the Clean Air Act indicates that the EPA administrator will not approve anything that interferes with attainment or maintenance. She stated that we are required to prove that removing the Stage II vapor recovery systems, and the timing of the removal, will not interfere with attainment or maintenance of the standard. It is a legal, Clean Air Act requirement.

Chair McNeely called for a motion to recommend adoption of the MAG 2014 State Implementation Plan Revision for Removal of Stage II Vapor Recovery Controls in the Maricopa Eight-Hour Ozone Nonattainment Area. Mr. Mattingly, moved and Oddvar Tveit, City of Tempe seconded, and the motion to recommend adoption of the MAG 2014 State Implementation Plan Revision for Removal of Stage II Vapor Recovery Controls in the Maricopa Eight-Hour Ozone Nonattainment Area, carried unanimously.

5. Update on the MAG 2012 Five Percent Plan for PM-10 and Exceptional Events

Lindy Bauer, Maricopa Association of Governments, provided an update on the MAG 2012 Five Percent Plan for PM-10 and exceptional events. She noted that the plan contains a wide variety of control measures on a variety of dust sources, including: trackout; open burning; unpaved shoulders; unpaved roads; vacant lots; earthmoving activities; all-terrain vehicles; weed abatement; leaf blowers; nonmetallic mineral processing; as well as, PM-10 Certified Street Sweepers. Ms. Bauer stated that on May 30, 2014, EPA signed a final notice to fully approve the MAG 2012 Five Percent Plan for PM-10. The following items are included in the approval notice: 2008 baseline emissions inventory and

the 2007, 2009, 2010, 2011, and 2012 projected emissions inventories; modeled attainment demonstration that showed the standard would be attained by December 31, 2012; five percent reduction in emissions demonstration; reasonable further progress and quantitative milestone demonstrations; contingency measures; motor vehicle emissions budget; and a determination that the Maricopa County Nonattainment Area has met the PM-10 standard based upon three years of clean data for 2010-2012. Ms. Bauer noted that this is the first time the region has met the PM-10 standard. She indicated that the approval was published in the Federal Register on June 10, 2014 and the effective date of final action is July 10, 2014. The Federal Register notice was included in Committee materials.

Ms. Bauer discussed aggressive dust prevention activities that have kept the region in compliance. The City of Phoenix established a Dust Reduction Task Force with both short term and long term goals. MAG created a PM-10 prevention video that was used for both education and training purposes. Ms. Bauer stated that Maricopa County provides near real time monitor data to prevent exceedances of the PM-10 standard. She added that the MAG Regional Council allocated \$90,000 in funding to Maricopa County for the near real time monitor data. The Rapid Response Program was established which consists of a network to prevent PM-10 exceedances regionwide. Maricopa County coordinates with MAG member agencies to avoid duplication of efforts. Ms. Bauer indicated that MAG member agencies, Maricopa County, and the State implemented customized Rapid Response Action Plans based on a MAG template and tool kit. She noted that MAG conducts PM-10 Prevention Workshops with local governments, Maricopa County, and ADEQ. Additionally, ADEQ sends out the Maricopa County Dust Control Action Forecast five days in advance. Ms. Bauer stated that agriculture, business, and industry have been working together to keep the dust down.

Ms. Bauer presented next steps. She stated that the aggressive prevention efforts must continue and thanked the MAG member agencies for their efforts. Clean data at the monitors and throughout the region must be maintained. Ms. Bauer indicated that MAG will begin to prepare the MAG Redesignation Request and Maintenance Plan for PM-10. She mentioned that the EPA Exceptional Events Rule (EER) and process still needs to be streamlined. EPA was scheduled to propose rule revisions in April 2014, however due to resource constraints, EPA is a year off schedule. Ms. Bauer displayed a photo of the July 5, 2011 haboob. She noted that the exceptional event documentation is very resource intensive in that 1,700 pages were produced for the exceptional event documentation. The exceptional event documentation cost ADEQ, Maricopa County, and MAG approximately \$675,000. Ms. Bauer indicated that six exceptional events occurred in 2013. She noted that exceptional event documentation has been submitted to EPA for concurrence on the six exceptional event days. Ms. Bauer mentioned that an exceptional event occurred on May 11, 2014 due to a regional dust storm. MAG staff has prepared the exceptional event documentation and submitted it to ADEQ for the regional dust storm on May 11, 2014.

Ms. Bauer stated that on June 25, 2014 U.S. Senator Jeff Flake introduced a revised version of the Commonsense Legislative Exceptional Events Reform (CLEER) Act, which was provided to the Committee. Many recommendations to streamline the Exceptional Events Rule from ADEQ, Maricopa County, the private sector, and MAG were included in the CLEER Act. The CLEER Act also includes some new provisions; one provision states that if EPA disapproves an exceptional event, the disapproval could only be appealed by the State. Another provision indicates that EPA would have 90 days after submission of the EER documentation to take action. The provision goes on to state that if EPA has questions on the submission, another 90 days is added before action is required. Ms. Bauer

stated that if EPA does not take action or request information in the 90 day period, the documentation is deemed to be approved. She indicated that this language parallels that of a completeness finding by EPA under the Clean Air Act.

Ms. Bauer discussed a June 2, 2014 press conference held by the MAG Regional Council on the EPA approval of the MAG 2012 Five Percent Plan for PM-10. Members of the MAG Regional Council, ADEQ, Maricopa County Air Quality Department, and the Arizona Department of Transportation joined for the press conference. Ms. Bauer thanked the Committee for all of their work and the work done by the public and private sectors.

Chair McNeely commented that the approval of the MAG 2012 Five Percent Plan for PM-10 is a major milestone. He thanked MAG for their work.

Oddvar Tveit, City of Tempe, commented that the region is not in attainment of the PM-10 standard despite the approval of the MAG 2012 Five Percent Plan for PM-10. He indicated that public relations should be clear that the region is still classified as nonattainment. Mr. Tveit mentioned this so that there remains pressure for the public to continue to contain dust emissions. Ms. Bauer stated that EPA has determined that the region has met the standard based on 2010-2012 data, the region will now request a redesignation to attainment status. She indicated that this process will include a maintenance plan and a demonstration to EPA that all requirements for a nonattainment area have been met. Ms. Bauer added that clean data at the monitors and throughout the region must be maintained going forward or we risk nonattainment status again. Ms. Bauer thanked Mr. Tveit for his comment.

6. Maricopa County PM-2.5 Speciation Study

Ron Pope, Maricopa County Air Quality Department, provided a presentation on the Maricopa County PM-2.5 Speciation Study. He discussed that for many years, PM-2.5 concentrations have been an issue around Christmas Day and New Year's Day. These days typically exceed the 24-hour PM-2.5 standard of $35 \mu\text{g}/\text{m}^3$. Mr. Pope presented a graph of the West Phoenix monitor data for both 2013 Christmas Eve/Christmas Day and 2013/2014 New Year's Eve/New Year's Day. He noted that the PM-2.5 standard was exceeded on both days. The New Year's Day PM-2.5 five-minute concentrations, of over $1,300 \mu\text{g}/\text{m}^3$, was one of the highest readings ever collected on the Maricopa County network. Mr. Pope commented that the pattern for Christmas day is consistent throughout the years in that PM-2.5 concentrations rise at approximately 6:00 p.m., levels around midnight for a few hours, and eventually decrease to below standard levels by morning. He indicated that the New Year's pattern is similar, except for a large spike generally occurring after midnight. The proposed hypothesis for the spike on New Year's Day is fireworks.

Mr. Pope stated that maintaining attainment of the PM-2.5 standard is crucial for public health. He noted that generally the monitors exceed the PM-2.5 standard on both Christmas Day and New Year's Day, making the holiday season increasingly problematic. The region has not violated the standard which is based on a three year average, however the trends for the holiday exceedances are increasing.

Mr. Pope discussed the speciation study questions. He explained that speciation refers to chemical species that are collected. Maricopa County established a speciation study to determine the source contributions of PM-2.5 during the holiday season. Another speciation study question is: how much did fireworks contribute to the total PM-2.5 concentrations on New Year's Day. To begin the study, Maricopa County Air Quality Department obtained Super-Speciation Air Sampler System (SASS)

monitors to be operated at the Tempe monitor and the Durango Complex monitor. The Tempe monitor site is in a residential area with a park nearby. The Durango Complex site is an industrial area. Mr. Pope stated that the study period was from December 3, 2013 to January 8, 2014 in which the monitors operated on a one and three day schedule with special collections for Christmas Eve, Christmas Day, New Year's Eve, and New Year's Day. Mr. Pope explained that the Super-SASS collect samples through a series of filters that are then sent to a laboratory for analysis. The laboratory tests for 51 different chemical species and is able to indicate the mass of each species in the samples.

Mr. Pope provided a comparison of monitoring methods. He indicated that the continuous air quality monitors normally at the site were running at the same time as the speciation monitor. The values of the speciation and the continuous monitor are very similar, however in some cases the continuous monitor reported slightly higher values.

Mr. Pope presented the modeling plan for the data collected. After the data from the samples were available, Maricopa County used the EPA Positive Matrix Factorization (PMF) Receptor Model to determine the PM-2.5 source contributions. The PMF model is a multi-variant statistical model that groups the species into factors or the fingerprints of a source based on the variations between the chemical species. Mr. Pope noted that the model does not identify source contributions, however through analysis of the quantity and the contribution of each species, the source contributions are determined. He presented graphs of the PMF models results that demonstrate the factors along with the monitoring data for New Year's Day at the West Phoenix monitor. Through analysis of the chemical species, firework markers were indicated by the trace elements and metals that were present. Mr. Pope presented a graph that contained the PM-2.5 data for both Christmas Day and New Year's Day that established wood-smoke and the biomass burning factor. He stated that models are continuously modified to reduce statistical error in the model to isolate factors with the best error rate.

Mr. Pope provided the Durango Complex results. He indicated that the best model had five factors. The error was low in that the actual PM-2.5 measured on New Year's Day was $50.1 \mu\text{g}/\text{m}^3$ and the model predicted $49.0 \mu\text{g}/\text{m}^3$. The fireworks factor was almost exclusive to New Year's Day in that this factor contributed 32 percent or $15.8 \mu\text{g}/\text{m}^3$ to the daily PM-2.5 total. Mr. Pope displayed a graph of the five chemical species contributions to the Durango Complex source profiles. He stated that the factors are determined by deduction based on the species contributions present, as well as, the timeline of when the species are present. The fireworks factor was only present on New Year's Day in that high levels of elements found in fireworks were present. Mr. Pope displayed a graph of source contributions by day at the Durango Complex monitor. New Year's Day reported approximately 32 percent as the fireworks factor and 62 percent as the biomass combustion factor, wood smoke. Biomass combustion made up a majority of the source contributions for Christmas Day.

Mr. Pope presented the Tempe monitor results. He stated that Tempe results did not include a sample for Christmas Day due to a malfunction at the monitor. Mr. Pope indicated that the best model for the Tempe monitor had four factors. The actual PM-2.5 measured on New Year's Day was $46.6 \mu\text{g}/\text{m}^3$ and the model predicted $43.6 \mu\text{g}/\text{m}^3$. There was one factor that was exclusive to New Year's Day which contributed $33.8 \mu\text{g}/\text{m}^3$ or 78 percent to the daily PM-2.5 total. Mr. Pope commented that this value is likely high due to the missed sample on Christmas Day. He displayed a graph of the four chemical species contributions to the Tempe monitor source profiles. The fireworks factor is present, however Mr. Pope noted that biomass combustion is included in the fireworks factor which may be due to the missing Christmas Day sample. He displayed a graph of source contributions by day at the Tempe monitor. The fireworks factor made up approximately 78 percent of the total contributions for New

Year's Day. Mr. Pope commented that if the Christmas data was available, the fireworks factor would have likely comprised approximately 50-60 percent of the total, with the rest of the percentage going in to the biomass combustion factor.

Mr. Pope discussed the comparison between commercial and consumer fireworks. Maricopa County Air Quality Department chose the Tempe monitor to study the effects of the Tempe New Year's Block Party which is usually the largest commercial fireworks display. The speciation study set out to answer if the commercial fireworks display affected the Tempe monitor readings. Mr. Pope stated that it is unlikely that the commercial fireworks had a substantial effect and that it was more likely that the effects originated from consumer fireworks. He indicated that source contributions impacting the monitor were found using the direction of pollution from 8:00 p.m. to 4:00 a.m. When the wind direction was from the northwest, the sample displays less than $34 \mu\text{g}/\text{m}^3$ of PM-2.5. However, the wind originated from the southeast 80 percent of the time. PM-2.5 was reported in an excess of $80 \mu\text{g}/\text{m}^3$ when the wind was from the southeast. Mr. Pope commented that it appears that the consumer fireworks in the residential areas near the monitor impacted the monitor more than commercial fireworks. He added that commercial fireworks displays are typically higher than the temperature inversion layer. Therefore, the smoke from commercial displays would not impact the monitor like ground-level consumer fireworks below the inversion layer.

Mr. Pope summarized the speciation study conclusions. Modeled data concludes that fireworks caused exceedances at the Durango and Tempe monitors on New Year's Day. Mr. Pope displayed a table that shows that without the source contribution of fireworks, the modeled daily average would not have exceeded the standard. Based on analysis, consumer fireworks are most likely the source contributions of the exceedances.

Mr. Pope discussed next steps for the speciation study. He stated that Maricopa County Air Quality Department would like to conduct additional sampling next season. The speciation monitoring would take place from November 2014 to February 2015 with a total of three total monitoring sites. Mr. Pope indicated that Maricopa County would like to coordinate with ADEQ since they have a speciation monitor at the Phoenix Supersite that could sample on certain days throughout the holiday season. The ADEQ monitor provides the advantage of long term data that can show trends over long periods of time. Mr. Pope stated that the locations of the monitors would be reevaluated for the potential of more source contributions, such as traffic.

Jessica Koberna, Town of Gilbert, inquired if firework displays put on by religious establishments and other organizations would be considered commercial or consumer fireworks. Mr. Pope responded that generally those would be commercial firework displays. Ms. Koberna asked if Maricopa County Air Quality Department would consider a monitoring location with a higher concentration of firework displays. Mr. Pope replied that the 2013-2014 speciation study looked at the Tempe Block Party firework display; he added that commercial fireworks displays are above the inversion layer which lessens the impact on monitors.

Rebecca Hudson, Southwest Gas Corporation, asked if the solution is to ban fireworks. Mr. Pope replied that he is just presenting the data findings. Chair McNeely indicated that enforcement with personal fireworks is an issue. Ms. Koberna commented that personal fireworks are allowed in Gilbert, but only on certain days and times.

Paul Lopez, City of Avondale, mentioned that perhaps the upcoming speciation study could analyze at what elevation the combustion of fireworks impacts the concentrations of PM-2.5. He commented that perhaps in the future, the monitors can be placed at various locations around an event like the Tempe New Year's Block Party to determine if commercial fireworks impact the monitors. Mr. Lopez stated that he agreed that higher elevation for firework combustion would impact the monitors less. Mr. Pope replied that during winter months the inversion layer is between 10-20 meters. He explained that if the combustion happens above the inversion layer, which acts as a blanket, the emissions will not descend and mix lower. Conversely, combustion of fireworks at ground level will not ascend and mix with higher air. Mr. Lopez clarified that residential fireworks have a larger impact on air quality than commercial firework displays.

Ann Carlton, Arizona Public Service Company, asked about data before fireworks were legal. Mr. Pope replied that data has been analyzed before fireworks were legal. He noted that wood smoke has always been a factor. However, no speciation data was available during that time which breaks down the source contributions. Mr. Pope indicated that another issue with old data, is that it was filter data that was collected every third day in which there may or not be data collected on Christmas and New Year's Day. He added that comparison between recent continuous monitoring data with every third day data collection is very challenging.

Mr. Lopez inquired how the region compares with other regions. He commented that there are a few event days of the year where compliance will be very difficult. Mr. Pope responded that an epidemiological study of the effects of PM-2.5 on people with asthma reports a 20 percent increase of hospitalizations on Christmas Day and New Year's Day. The study's focus was simply on high PM-2.5 concentration days, however Christmas Day and New Year's Day generally report elevated PM-2.5 concentrations. He commented that the health impact needs to be considered. Mr. Pope mentioned that the PM-2.5 standard, which is based upon a 98 percentile, has not been violated, however Christmas and New Year's Day are nearing the standard. Mr. Lopez noted that with regard to public education it is important to note the health ramifications of wood burning and fireworks that are causing an increase of hospitalizations. Mr. Pope added that the high concentrations of PM-2.5 affect vulnerable populations.

Ms. Bauer indicated that MAG hosted the Desert Peaks Awards event on June 25, 2014. She stated that the Maricopa County Air Quality Department was awarded a Desert Peaks award for their No Burn Campaign that has a slogan of "Don't Let Our Air Go Up in Smoke". Maricopa County spoke to the MAG Air Quality Technical Advisory Committee, the MAG Management Committee, the MAG Regional Council, and the private sector as part of the Campaign's public education and outreach. Ms. Bauer commented that last year was the first year for the Campaign and that perhaps the upcoming Campaign can include additional public education on the holidays. She stated that the Maricopa County Air Quality Department will be continuing the Campaign this year. Chair McNeely inquired if fireworks were mentioned in the Campaign last year. Ms. Bauer responded that the Campaign primarily focused on wood smoke, since the data was not available until recently on fireworks. Mr. Pope replied that the Campaign was waiting on the data from the speciation study before it addressed fireworks.

7. MAG Eight-Hour Ozone Modeling Study

Ms. Bauer provided an overview of the MAG Eight-Hour Ozone Modeling Study. She indicated that EPA has approved the MAG 2007 Eight-Hour Ozone Plan for the Maricopa Nonattainment Area for

the 1997 ozone standard, as well as, proposed approval of the MAG Eight-Hour Ozone Redesignation Request and Maintenance Plan. The region now needs three years of clean data for the 2008 ozone standard of 0.075 parts per million. Ms. Bauer stated that the data is being updated and the models evaluated in preparation of a potential revision to the ozone standard. She stated that the following items are also being reviewed: regional sensitivity to nitrogen oxide reductions, VOC reductions, and assumptions. Ms. Bauer indicated that in the past, reductions in nitrogen oxides have created an increase in ozone concentrations in some areas. She noted that the assumptions and models need to be updated due to changes in: vehicle exhaust, business and industry emissions, biogenics, and transport. Ms. Bauer mentioned that MAG consultants are investigating transport emissions from other regions, as well.

Ms. Bauer discussed that clean data is required for years 2013, 2014, and 2015 due to a December 31, 2015 attainment date. MAG is closely tracking the ozone monitoring data. Ms. Bauer indicated that the ozone concentrations were lower in 2013 as compared to the high ozone concentrations experienced in years 2011 and 2012. These high concentrations of ozone in 2011 and 2012 occurred around various parts of the country and seem to be attributed to meteorology. Ms. Bauer stated the MAG staff wanted to make the Committee aware of these activities.

Diane Arnst, Arizona Department of Environmental Quality, commented that the Western States Air Resources Council (WESTAR) has submitted comments to EPA on the 2011 modeling platform for ozone. One of the comments provided by WESTAR was for EPA to update the Mexico Emissions Inventory which is from 1999. Ms. Arnst indicated that EPA was planning to utilize the 1999 inventory to project emissions to the year 2018. Another comment made by WESTAR was to update the Canada Emissions Inventory. Additionally, a comment requested that EPA utilize Western Regional Air Partnership (WRAP) fire information which is designed to take into account western vegetation and western vegetation emission contributions. Ms. Arnst stated that the comment period ends June 30, 2014. She stated that WESTAR submitted seven different comments in which one requests that the 2018 modeling projections be based on version two of the 2011 modeling platform.

Chair McNeely asked if Senator Flake's CLEER Act applies to forest fires, ozone transportation, and other conditions. Ms. Bauer responded that Senator Flake has proposed another act called the Ozone Regulatory Delay and Extension of Assessment Length (ORDEAL) Act.

8. Call for Future Agenda Items

Chair McNeely requested suggestions for future agenda items. He requested an update on the ORDEAL Act. Chair McNeely indicated that the next meeting of the Committee has been scheduled for Thursday, August 28, 2014 at 1:30 p.m. With no further comments, the meeting was adjourned at approximately 2:35 p.m.